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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Louis Lagler

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EXAMINER

KIRSCH, ANDREW THOMAS

ART UNIT

PAPER NUMBER

3781

MAIL DATE

DELIVERY MODE

09/16/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,338	LAGLER, LOUIS	
	Examiner	Art Unit	
	ANDREW T. KIRSCH	3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-12 is/are pending in the application.
- 5a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-3 and 6-12 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 30 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The amendment filed 8/23/2011, has been entered.

Claim Objections

2. The objections to claims 1 and 9 have been removed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "wherein the trapezoid elements are spaced apart separated by a cutout." It is not clear what is meant by "spaced apart separated," or whether the elements are to be spaced apart or separated. For the purposes of examination, it will be interpreted that the trapezoid elements are to be spaced apart as is consistent with the drawings, as being "separated" could imply that a processing step to perform some separation.

6. Claim 12 recites the limitation "a cylindrical boundary surface R1." However, R1 is also the annotation for the maximum inner radius as mentioned early in the claim. For the purposes of examination, the cylindrical boundary surface will be interpreted as R3 as is consistent with the previous claims as well as the specification and drawings.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

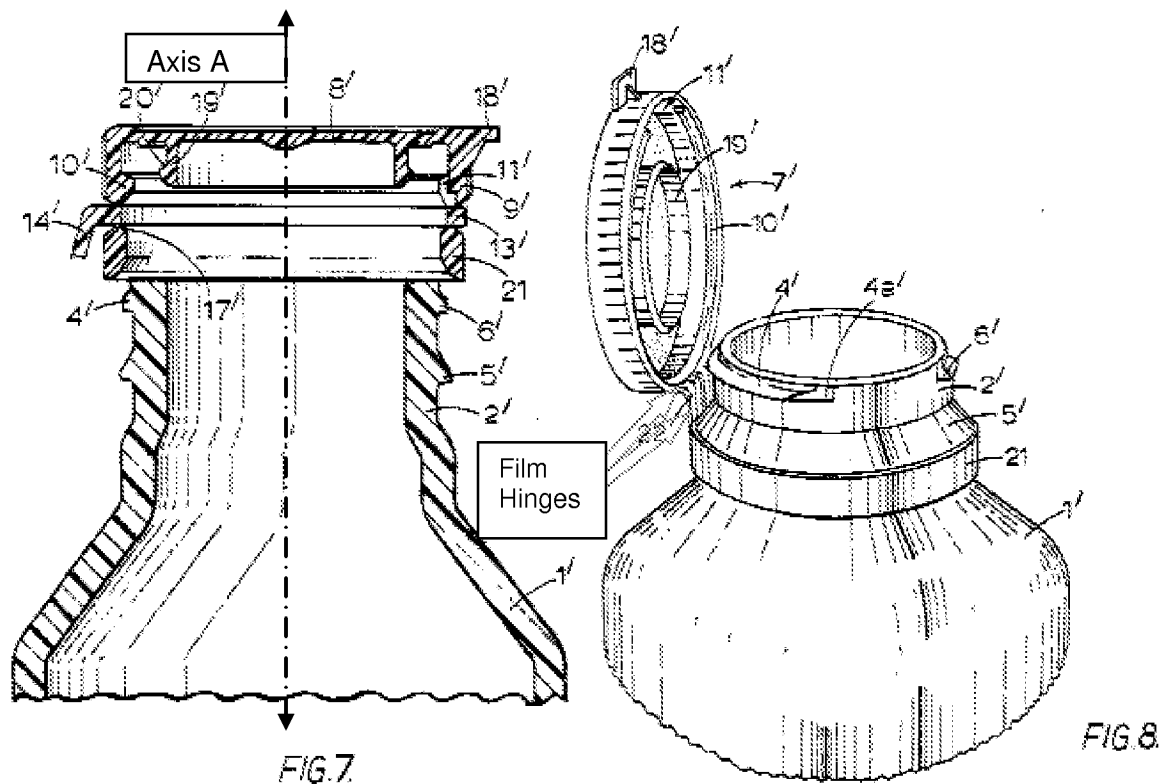
8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,043,475 (Wheeler hereinafter) in view of U.S. Patent No. 6,041,477 (Rentsch et al. hereinafter) and U.S. Patent No. 6,460,712 (Smith et al. hereinafter).

9. In re Claim 1, with reference to Figs. 7 and 8 below, Wheeler discloses: A closure moulded in closed position with

- a ring shaped body (21), the ring shaped body having an opening extending in an axial direction and having substantially the same diameter at both ends (see Fig. 7), comprising fixing means (17) to fix the closure on a neck (2') of a bottle (1'), the fixing means having substantially the same diameter as the opening (see Fig. 7), and

- a lid (7), the lid having substantially the same diameter as the ring shaped body (see fig. 7), the lid comprising a sealing means (19', 20') to seal an orifice (2') of the bottle, the sealing means directly contacting the neck of the bottle (column 3, lines 52-54), and

• a snap hinge comprising a first element (22) and a pair of film hinges (see Fig. 8) defining a plane, the pair of film hinges connecting the first element (22) to the lid (7) and to the body (21), whereby the plane is arranged substantially parallel to an axis A (Fig. 7) of the closure, the film hinges being defined on the outside by a cylindrical boundary surface having a radius R3 (at 21).



10. Wheeler does not disclose wherein the snap hinge comprises a first and second trapezoid element, or a second pair of film hinges defining a second plane, and whereby the inside of each film hinge is defined by a plane on the inside of the closure and the outside of the film hinge is defined by two flat boundary planes arranged at an angle κ to each other.

11. However, with reference to Figs. 6 and 7 below, Rentsch et al. discloses a closure wherein a snap hinge comprises a first and second trapezoid element (5.3, 5.4), and a second pair of film hinges (10) defining a second plane, and whereby the inside of each film hinge is defined by a plane (at 4.3 and 4.4) on the inside of the closure and the outside of the film hinge is defined by two flat boundary planes (at 5.3 and 5.4) arranged at an angle κ to each other.

FIG. 5

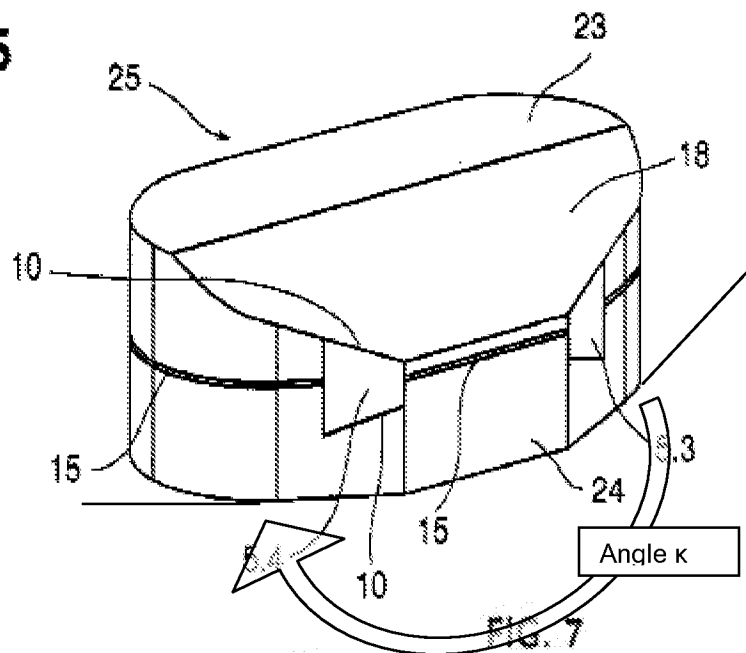


FIG. 6

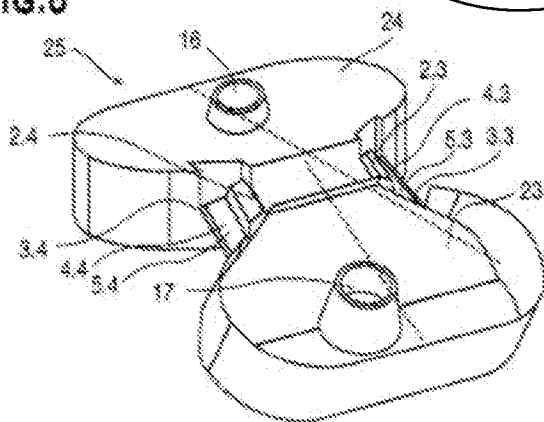


FIG. 7

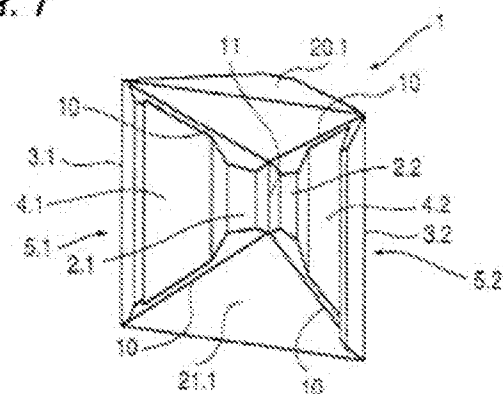


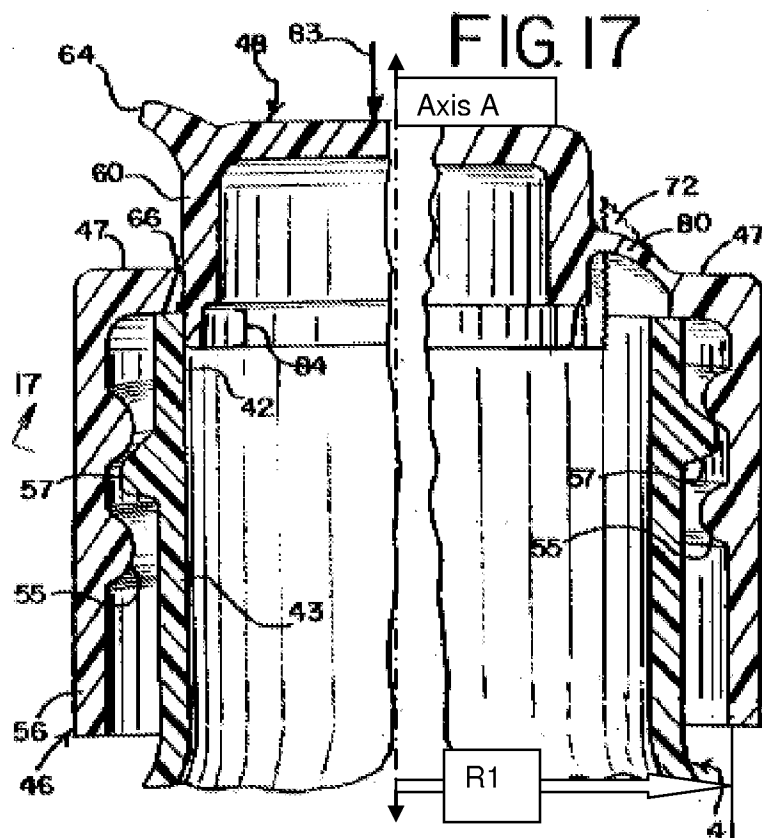
Fig. 7 of Rentsch et al.

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12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have shaped the element of the closure of Wheeler as a trapezoid and to have duplicated the number of elements as taught by Rentsch et al. for the purposes of strengthening the hinge joint and achieving a preferred snapping movement of the lid (column 3, lines 39-54).

13. Wheeler in view of Rentsch et al. fails to disclose wherein an inner periphery of the film hinges and an inner periphery of the closure are configured such that they do not extend outward beyond a maximum inner radius R1 of the closure.

14. However, with reference to Fig. 17 below, Smith et al. discloses a one piece closure which is molded in the closed position in which the inner periphery of the film hinge (80) and an inner periphery of the closure (84) do not extend outward beyond a maximum inner radius R1 of the closure (see Fig. 17 below).



15. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the closure of Wheeler in view of Rentsch et al. such that the hinges do not extend outward beyond a maximum inner radius as taught by Smith et al. to facilitate molding the closure in the closed position by maximizing the capacity of the mold and increase efficiency of manufacturing (Smith et al., column 8, lines 4-12).

16. In re Claim 2, Wheeler in view of Rentsch et al. and Smith et al. disclose the claimed invention except wherein the first and second pair of film hinges are arranged at an angle Φ to each other, and the first and the second plane defined by the first and the

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second pair of film hinges are arranged at an angle ω , the angle Φ and an opening angle α of the closure is:

$$\phi/2 = a \tan \left[\frac{\sin(\alpha)}{1 - \cos(\alpha)} \sin\left(\frac{\omega}{2}\right) \right]$$

17. However, Rentsch et al. discloses the first and second pair of film hinges are arranged at an angle Φ to each other, and the first and the second plane defined by the first and the second pair of film hinges are arranged at an angle ω , the angle Φ and an opening angle α of the closure is:

$$\phi/2 = a \tan \left[\frac{\sin(\alpha)}{1 - \cos(\alpha)} \sin\left(\frac{\omega}{2}\right) \right] \quad (\text{column 13, lines 1-10})$$

18. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have designed the film hinges of Wheeler in view of Rentsch et al. and Smith et al. according to the known formula taught by Rentsch for the purposes of ensuring two stress free states in the closed and open position during tilting (column 12, lines 58-61).

19. In re claim 3, Rentsch et al. discloses that the opening angle a is in the range of 180° and 240° (col. 3, lines 39-42; col. 4, lines 51-53).

20. In re claim 4, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. disclose the claimed invention including wherein the film hinges (10, 11) and the inner periphery of the closure are designed such that they do not protrude over a main inner radius (inside of the ring shaped body) of the closure (see fig. 7 of Wheeler).

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21. In re Claim 5, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. discloses wherein the film hinges (6) are defined by a plane on the inside of the closure and the outside of the film hinges (10, 11) is defined by two flat boundary planes (see Fig. 5 of Rentsch et al.), arranged at an angle each other, and a cylindrical boundary surface having a radius (See Fig. 8 of Wheeler).

22. In re Claim 6, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. discloses wherein the trapezoid elements (5.3, 5.4) are spaced apart by a cutout (see Fig. 5 of Rentsch et al.).

23. In re Claim 7, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. discloses that the trapezoid elements (5.1, 5.2) are connected by a thin film hinge along a shorter edge (11).

24. In re Claim 8, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. discloses wherein the body and the lid are connected by tamper evidence means (the webs above and below 13 which connect the lid and body), which are destroyed by initial opening.

25. In re Claim 9, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. discloses that the body (24) and lid (23) are in the open position spaced a distance s apart, whereby the distance s is equal to 50% to 90% of the shorter edge of the trapezoid element (5.4, 5.3). In order for s to be 50% to 90% of the shorter edge of the trapezoid α must be between 120° and 154° or between 206° and 240° . Rentsch et

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al. discloses that the closure is capable of angles greater than 180°. Thus, the closure disclosed by Rentsch et al. can be in either range of angles when in the open position.

26. In re claim 10, with reference to the Figs. above, Wheeler in view of Rentsch et al. and Smith et al. disclose the claimed invention including wherein said closure is characterized by a cylindrical outer wall section (see Fig. 8 of Wheeler).

27. In re claims 11 and 12, with reference to the figs. above, Wheeler in view of Rentsch et al. and Smith et al. disclose: A closure, moulded in a closed position, comprising: a ring shaped body including an opening extending in an axial direction between a bottom end and a top end and having substantially a same diameter at both the bottom end and the top end (as in re claim 1); the ring shaped body further comprising a fixing device configured to fix the closure on a neck of a bottle, the ring shaped body configured such that the neck (2') of the bottle extends above the ring shaped body (21) (see Fig. 8 of Wheeler); a lid having substantially the same diameter as the ring shaped body; the lid further comprising a seal configured to seal an orifice of the bottle, the seal directly contacting the neck of the bottle; and a snap hinge configured to connect the ring shaped body to the lid (as in re claim 1) such that the body and lid are separated from each other by a circumferential gap (unoccupied by 13' after opening); and a plurality of bridge elements connected between the ring shaped body and the lid along an inner periphery of the circumferential gap (14a); the snap hinge further comprising a first and a second trapezoid element and a first and second pair of film hinges, each pair of film hinges defining a first and a second plane, respectively, the first and the second pair connecting the first and the second trapezoid

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element to the lid and to the ring shaped body (as in re claim 1), whereby the first and the second plane are arranged substantially parallel to an axis A of the closure (as in re claim 1), and whereby an inner periphery of the film hinges and an inner periphery of the closure are configured such that they do not extend outward beyond a maximum inner radius R1 of the closure and whereby the inside of each film hinge is defined by a plane on the inside of the closure and the outside of the film hinge is defined by two flat boundary planes arranged at an angle κ to each other, and a cylindrical boundary surface having a radius [R1] R3 (as in re claim 1 above).

Response to Arguments

28. Applicant's arguments filed 8/23/2011 have been fully considered but they are moot in view of the new grounds of rejection necessitated by the amendment.

Conclusion

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any amendments

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made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02.

The "disclosure" includes the claims, the specification and the drawings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW T. KIRSCH whose telephone number is (571)270-5723. The examiner can normally be reached on M-Th, 6:30am-5pm, off Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANDREW T KIRSCH/
Examiner, Art Unit 3781

/Anthony Stashick/
Supervisory Patent Examiner, Art
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